

**CLAIMS**

1. A method for coding an input digital video sequence corresponding to a color image sequence comprising a luminance component with luminance values, and having a spatial representation, said method comprising the following steps:
  - 5 - a transformation step, provided for transforming said video sequence from the original spatial representation domain into fewer representation data comprising transformed luminance values ;
  - a quantization step, provided for performing a quantization on the representation data so as to obtain a reduced set of data, characterized in that said quantization step performs a quantization of the luminance component in an adaptive way according to  
10 a visible range of transformed luminance values of said luminance component in order to obtain said reduced set of data.
2. A method for coding an input digital video sequence as claimed in claim 1, characterized in that the quantization step is performed by:
  - 15 - applying a heavy weight to the transformed luminance values in the visible range ;
  - computing the probability of transformed luminance values appearance within the luminance component ; and
  - transforming the representation data into said reduced set of data according to said probability of values appearance.
- 20 3. A method for coding an input digital video sequence as claimed in claim 1, characterized in that the quantization step is performed by:
  - using coarse quantization points for the transformed luminance values outside the visible range; and
  - 25 - using fine quantization points for the transformed luminance values within the visible range.
- 30 4. A computer program product for an encoder, comprising a set of instructions, which, when loaded into said encoder, causes the encoder to carry out the method as claimed in claims 1 to 3.

5. A computer program product for a computer, comprising a set of instructions, which, when loaded into said computer, causes the computer to carry out the method as claimed in claims 1 to 3.

6. An encoder for coding an input digital video signal corresponding to a color image sequence comprising a luminance component with luminance values, said signal having a spatial representation, said encoder comprising:

- transformation means for transforming said video sequence from an original spatial representation domain into fewer representation data comprising transformed luminance values ;
- quantization means for performing a quantization on the representation data so as to obtain a reduced set of data, characterized in that said quantization means are adapted to perform a quantization of the luminance component in an adaptive way according to a visible range of transformed luminance values of said luminance component in order to obtain said reduced set of data.

7. A video communication system, which is able to receive an input digital video signal, said signal being coded by the encoder defined in claim 6.